

**KEY FACTS**

- Equation:  $6\text{CO}_2 + 6\text{H}_2\text{O} \rightarrow \text{C}_6\text{H}_{12}\text{O}_6 + 6\text{O}_2$  (light energy required, in chloroplasts)
- Chlorophyll: green pigment absorbing red and blue light
- Glucose uses: respiration, starch (storage), cellulose (walls), proteins (+ nitrates), sucrose (transport), lipids (seeds)

**EQUATIONS / FORMULAS**

**Word equation:**  $\text{CO}_2 + \text{water} \rightarrow \text{glucose} + \text{oxygen}$  (light energy)

**KEY TERMS**

<b>Photosynthesis</b>	$\text{CO}_2 + \text{H}_2\text{O} \rightarrow \text{glucose} + \text{O}_2$ using light energy — in chloroplasts
<b>Chlorophyll</b>	Green pigment in chloroplasts — absorbs light energy
<b>Endothermic</b>	Absorbs energy from surroundings (photosynthesis absorbs light)

■ EXAM TIP: Learn BOTH equations.  $\text{CO}_2$  and  $\text{H}_2\text{O}$  are INPUTS. Glucose and  $\text{O}_2$  are OUTPUTS. Getting these backwards is the most common error.